

## PATENT COOPERATION TREATY

PCT

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 INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
 (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference SEL/EN 44537	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/SE 2002/000450	International filing date (day/month/year) 12-03-2002	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC H04M1/00, H04M9/00, H01R13/70		
Applicant Telefonaktiebolaget LM Ericsson (publ) et al		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
  - a. ☐ (sent to the applicant and to the International Bureau) a total of \_\_\_\_\_ sheets, as follows:
    - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:
 

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand  22-09-2003	Date of completion of this report  14-05-2004
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# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE 2002/000450

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

☒ the international application as originally filed/furnished

☐ the description:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the claims:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the drawings:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE 2002/000450

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	<u>1 - 7</u>	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	<u>1 - 7</u>	NO
Industrial applicability (IA)	Claims	<u>1 - 7</u>	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

The following documents were cited in the corrected International Search Report:

A: ELFA catalogue, January 2002, page 659, art. no. 42-694-03, "Mellanpropps-kablage"

B: US 5 414 765 A

C: US 4 937 464 A

D: US 4 852 153 A

E: US 4 626 633 A

F: EP 1 158 612 A2

G: WO 01 80536 A1

The invention relates to a local telephony network (10) having several jacks (60 - 63) with a first jack (60) connected to a second (analogue) network (telephone exchange 30). Each jack has a switch that disconnects the next jack when a telephone plug is inserted.

The invention is intended to solve the problem of how to use the existing jacks in the residential area together with a third (digital) network (20) or an (analogue-digital converting) equipment.

The solution essentially comprises a special plug (70), inserted into the first jack and connected to the third (digital) network (20) via the contacts that are disconnected from the second network (telephone exchange 30). The special plug has a jack for inserting the telephone plug.

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## Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 1 - 2, 4 and 6 - 8 are unclear considering they do not reveal how the local telephony first network etc. is constructed, for example whether there is more than one jack.

The word "upper" in claim 1, line 12 should read "first".

The expression "equipment equipment" in claim 1, line 17 is unclear.

Claims 1 (lines 8 - 13) and 4 are misleading and lack support in the description and drawings considering the intended plug (70) has an actuating means (rigid pin 100, cf. claim 5 and figure 9) that operates a switch (69, figures 7 - 8) located in the jack.

The expression "second third network" in claim 6, line 8 is unclear (the word "third" should be deleted).

Claims 1 (lines 14 - 17) and 7 are unclear considering they fail to reveal the means for controlling the automatic switching unit.

Claim 8 is unclear and lacks support by the description and drawings, see page 5, lines 6 - 10: In the normal case the local telephony network is switched to the third network (20). The local network is switched to the second network (PSTN 30) if no dial tone is detected after off-hook from the third network (20). The local network is switched to the second network (PSTN 30) if a ringing signal is detected on the second network (30).

The word "equipment" in the claims is vague. The meaning of the expression "special telephony equipment" in claim 8, lines 19 and 21 is unclear.

The expression "the second network---special telephony equipment (50)" in claim 8, line 19 is not supported by the description and drawings wherein the equipment (50) belongs to the third network (20).

The expression "to the third network including a public switched telephony network---from the third network or equipment" in claim 8, lines 21 - 23 is not supported by the

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## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

Alternatively, a special plug (110, 139) has a built-in manual or automatic (selector) switch for routing signals of the local telephony network either to a second network/equipment (the telephone exchange 30) or to a third (digital) network/equipment (20, 50).

Document G (page 2, lines 7 - 15) discloses a local telephony network having several jacks with a first jack connected to a second network (telephone exchange). Each jack has four terminals. Two of the terminals are used to connect to a telephone. The other two terminals are used to connect the next telephone in the chain. When no telephone plug is inserted in a jack, the four terminals are short-circuited. The terminals are divided by a centre plug (actuating means) in the plug for the telephone when inserted. If multiple telephone devices (equipments) are plugged into the same jack, a (special) plug is used having one end adapted to be inserted into a jack, and having at least one receiving socket at another end, adapted to receive a conventional telephone plug.

Document A discloses a similar plug for insertion into a jack. The plug has a jack for receiving a telephone plug and a cable for connection to a telephone modem.

The invention claimed in claims 1 (the first alternative in lines 1 - 13), and 2 - 5 differs from what is known from document G essentially in that the special plug connects the two terminals that are connected to the next telephone to the equipment or a third network.

The technical problem is how to connect an equipment or a third (digital) network to the local network or how to use the special plug.

However, it would be obvious to a person skilled in the art to use the special plug for connecting the two terminals that are connected to the next telephone to an equipment or to a third network, especially considering the properties of the jacks and plugs are well known and no unexpected technical effect is obtained. Therefore, the invention claimed in claims 1 - 5 lacks an inventive step.

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## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

The invention claimed in claim 1 (lines 1 - 8 and 14 - 17) and claims 6 - 7 differs from what is known from document G essentially in that the special plug (110, 139) has a built-in manual or automatic (selector) switch for routing signals of the local telephony network either to a second network/equipment (the telephone exchange 30) or to a third (digital) network/equipment (20, 50).

It would be obvious to a person skilled in the art who wants to connect a third digital network/equipment to an existing local telephony network to provide the special plug of document G with a built-in manual or automatic switch for connecting the local network either to the second network/equipment or the third network/equipment, especially to obtain an alternative traffic possibility, for example when one of the networks etc. is out of order. Besides, a telephone plug having a built-in automatic switch is known from document G:

Document G (page 3, line 25 - page 12, line 15, figures 1 - 4) discloses a special plug (30, 22, figures 1 - 3) having a built-in automatic switch (RE) for switching a local telephony network (PLa, PLb, SLa, SLb, 24) to a second network/equipment (the telephone exchange via L1a, L1b or L2a, L3b etc.) or (via SP in figure 3, which includes the switch RE of figure 4) to a third network/equipment (Sa, Sb, telephone 23).

Therefore, the invention claimed in claim 1 (lines 1 - 8 and 14 - 17) and claims 6 - 7 lacks an inventive step.

Document D (column 3, line 26 - column 5, line 10, figures 6 - 7) shows a similar technique, namely an automatic switch (26, 28) for switching a local telephony network (14) to a telephone (34) or an equipment (fax 30).

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box VIII

description and drawings wherein the second network (30) includes a public switched telephony network (30).

Some features (the second and third networks, equipments) of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT). The plug in claim 1, line 14 should have the references 110, 130.